

Highway & Heavy Construction



Dust retardant is applied to seeded and fertilized soil adjacent to restored Runway 25L-7R at Los Angeles International Airport to protect area from dust caused by winds and jetwash until grass grows to perform this job.

➔ One Year Later:

How Dust Retardant Helped Grass Get A Grip On LAX

Over 1600 lb. of perennial rye grass seed could by now have been gone with the wind and jetwash at Los Angeles International Airport (LAX).

Instead, less than a year after planting (H&HC, September 1984), the seed has germinated into 28 acres of protective covering for sandy soil near a runway.

It took careful planning to accomplish this transformation.

The soil treatment was part of a major program to rebuild the 11,095-ft. east-west runway, one of the four major runways at the airport, which had previously been restricted to light aircraft and private planes because of load limitations.

Rebuilt to handle the largest aircraft in existence, the runway would have been at the mercy of dust and debris if adjacent soil could not be contained.

This has been accomplished by the use

of a material that kept dust from dislodging the seeds from the sandy soil during their germination, according to Sam Tanaka, civil engineering associate, L.A. Department of Airports.

The material, Coherex dust retardant, a cold-water petroleum resins emulsion, is made by Witco's Golden Bear Div.

"Coherex kept down dust by agglomerating the fine particles," said Ken Nelson, chief estimator of the erosion department of Karleskint-Crum, Inc., San Luis Obispo, the landscapers, "and created a greenhouse effect, or protective membrane, that kept the seeds warm and moist—ideal for germination."

The landscapers lightly cultivated the areas to be seeded with disc and a harrow. Perennial rye grass seed was then applied to the area, at a rate of 60 lb. per acre followed by 200 lb. per acre of 16-

20-0 ammonium phosphate.

The landscaper again harrowed the soil to sink most seeds below the soil surface. The area was then sprayed with Coherex agent by distributor truck.

The material was diluted 7:1 (water to agent) and applied at a rate of 0.5 gsy, a total of 12,120 gal., to soil and landfill.

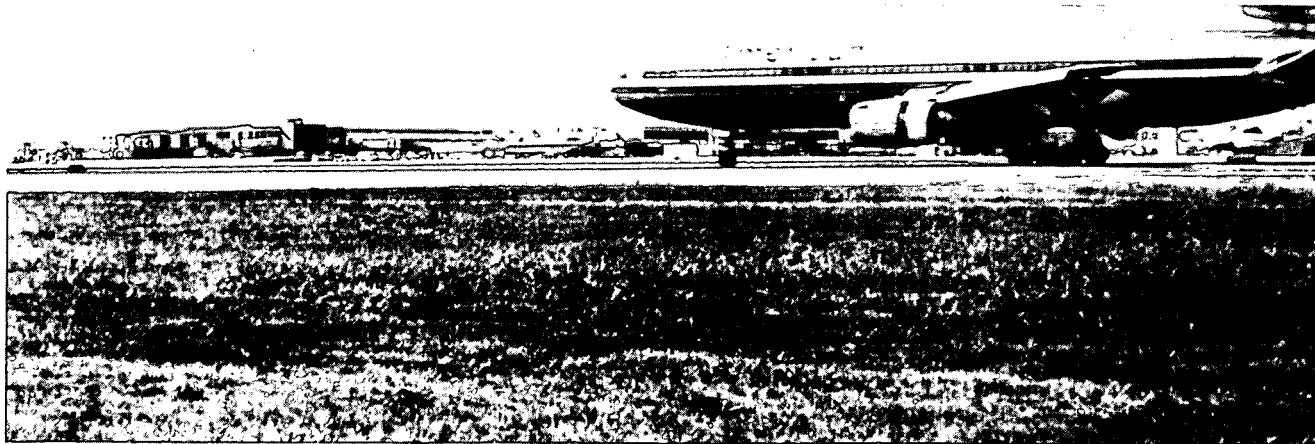
Now stabilized, the soil required one further treatment. This was provided by Los Angeles-area rains which, by Spring of 1985, resulted in grass tall enough, according to Tanaka, to require mowing.

The predictability of L.A. rains made seeding easier. A drier area, said Nelson, would have needed irrigation." □

More information on equipment used is available by circling the appropriate Reader Service Number in this issue.

173 Dust retardant

And the grass grew! Retardant both protected the seed and created a "greenhouse effect" that helped germination. The perennial rye grass attained this coverage in less than a year.



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Planes were able to land and depart on schedule at the Los Angeles Airport despite the runway construction.

Los Angeles Upgrades Airport Runways

A significant chapter in the history of Los Angeles International Airport has been written with the control of sand, dust, dirt and similar flying objects on the airport's runways through a soil treatment project.

The project was part of a major program to rebuild on the four main runways at the airport, which previously had been restricted to handle DC-8, DC-9, 727 and 737 aircraft. In an effort to curb arrival and departure delays while aircraft taxied to and from the south terminals, the 11,095-foot runway has been reconstructed to accommodate the largest aircraft in existence — with added strength to handle even larger loads in the future, according to Sam Tanaka, civil engineering associate

for the Los Angeles Department of Airports.

In order to create a graded area sloping to the runway, an embankment had to be constructed three feet above the existing grade. To create the necessary slope, 90,000 yards of dirt were required to supplement existing soil around the runway. However, the soil and additional dirt posed a major dust problem from two sources: jet wash from planes and winds that sometimes reach 25 mph by afternoon.

To control the dust from the planes, while keeping the seeds in place for the grass growth, the Department of Airports used a stabilizing agent, Cohex®[®], manufactured by Witco Corporation.

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